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I want to thank Kate Krebs and the National Recycling Coalition for inviting me here this morning. I asked to be invited, because there appears to be a dysfunction in the recycling market.

On the one hand, if you look at the prices being paid for virgin raw materials, this should be the best of times for recyclers. The price of raw materials, including fossil fuels, has risen rapidly across the board over the past few years. You'd expect high material prices would give people a bigger incentive to use materials more efficiently. And that includes using recycled materials. But, on the other hand, if you look at recycling rates over the past few years, they're generally flat or, for some materials, declining.

Why are we having trouble expanding recycling rates in this country, when the used materials themselves are in such demand? What's going on here?

I don't have the answer to that, and there may be several answers at play. So today I want to look at this troubling question and its implications for your industry. And then suggest some of the things that could be done to move recycling rates up.

The track of commodity prices has traditionally been a gut-wrenching roller coaster ride. And because of dramatic changes in the global economy, the ride for the past few years has been up up up at a dizzying pace. Crude oil is the one example that everyone knows about, the one example whose changing price is front page news. And the world price of crude oil is way up.

How much is it up? That depends on what day you ask. Last week the price of crude oil rose to 68 dollars a barrel, the highest price ever in nominal terms.

It's possible that world oil prices could drift downward again. But I don't know anyone who expects to see 20 dollars a barrel ever again, or even 30 dollars a barrel. Goldman Sachs has predicted that oil will cost $60 a barrel for the next five years.

Oil prices will fluctuate in the future, as they have in the past. But they'll almost certainly fluctuate at much higher levels.

The same global economic growth that's driving up crude oil prices is driving up the global price of other raw materials. Two weeks ago, the price of copper hit a new high on the London Metal Exchange. Nickel is now selling for about three times more than in 2001. The price of aluminum rose by over one-third between 2003 and 2005. One index of a broad range of commodities is now more than 50 percent higher than it was four years ago.

This is good news for your industry. The rising price of raw materials is helping drive up the price of the recycled materials that replace them. The market price for recycled PET almost doubled between 2000 and 2005. The market price for recycled HDPE went up by about two-thirds during the same period. The price for used aluminum cans increased by about a third.

But apparently these increases in commodity prices have <u>not</u> driven similar increases in recycling rates in the United States. Since the year 2000, the rate at which we recycle or compost municipal solid waste has barely budged. The percentage of materials recovered in 2003 – the last year for which we have complete data – was up only slightly from four years earlier.

If you look at individual components of the municipal solid waste stream,

the picture is inconsistent. The recycling rate for paper, for example, is rising, but not as fast as you'd like. It's now approaching 50 percent, almost double the rate in 1990. Corrugated cardboard and newspaper recycling rates are much higher than that. But the paper recycling industry is still hungry for fiber.

The recycling rate for metals, on the other hand, inched up only slightly between 1995 and 2003. Overall plastics recycling was virtually unchanged over the same period. The recycling of aluminum beverage cans actually declined, from almost 60 percent in 1997 to 44 percent in 2003. Recent data show the recycling rate for aluminum cans is increasing, but only slightly. Given the recent rise in the value of those cans, that's astounding.

The bottom line? Recycling rates for materials found in the municipal solid waste stream have been flat, at best, for the past several years. On paper, that part of your business looks stagnant.

Why this disconnect between commodity prices and recycling rates? And what does that say about the future of your industry? To what extent are U.S. recyclers affected by competition from other countries? It looks like American recyclers are in the same boat as American garment manufacturers; that is, businesses with inherent cost structures that make it very difficult to compete with foreign competitors.

Is that true? If it's true, should the government care? Since global economic forces seem to be at least part of the problem facing you, can the federal government do anything about it? Should the federal government do anything about it? And if so, what? What would be a proper and effective federal role in a situation like this?

I'm asking a lot of questions here, and I don't have a lot of answers. But I

want to put these questions on the table. I believe the efficient use of input commodities, which includes materials recycling and reuse, is an important aspect of environmental quality. It will be a key component of future economic growth. I don't believe we can compete successfully in a cut-throat global marketplace if we continue to throw away large quantities of used, but still valuable, material. And in some cases recycling can help reduce our country's dependence on imported oil. For these three reasons – the environment, the economy, and national security– I do care what happens to this industry.

Let me make clear what I mean by recycling. I don't mean just collecting and separating different kinds of waste and leaving them by the curb. I mean collecting, separating, and transforming or reusing those wastes in new products that are reintroduced into the marketplace. It's the whole life-cycle process of materials use and reuse that interests me. That's the market I'm worried about.

There's no question that dramatic economic growth in countries like China and India are roiling the American economy. They're now competing with us for access to the world's resources, and those resources include not only oil and natural gas, but used paper and scrap steel as well. All of us today are living in a world where the prices of commodities – both virgin and used – are unusually high, and unusually volatile.

But your industry has lived and thrived with volatile commodity prices before. What's different today? Why are foreign recyclers outbidding us for America's used paper? We are in danger of becoming a nation of scrap exporters, if we can't compete better as reprocessors and reusers.

I'm speaking to you today as a representative of the U.S. Environmental Protection Agency. At EPA, our business is environmental quality. In the part of

EPA I manage, we pay particular attention to the environmental consequences of managing waste.

But over the past four years I've become increasingly convinced that, in the area of waste management at least, EPA has to change. And the country has to change. We have to turn our attention further upstream. We have to turn our attention from the management of wastes to the management of materials. And to the most efficient use of all input materials. Because pollution is essentially waste. If we want a healthy economy and a healthy environment, I believe it's essential to reuse waste materials, not just bury or burn them safely.

One of the most environmentally beneficial aspects of recycling is the inherent energy efficiency. At EPA we've been studying the energy impacts associated with different products over their life cycles. And there's no doubt that lots of energy is saved when materials are recycled instead of thrown away.

One of the biggest energy winners is aluminum cans. For every ton recycled, we save over 200 million BTUs. By the way, this is another reason I'm flabbergasted that aluminum can recycling rates have dropped so far. For every ton of copper wire recycled, we save over 80 million BTUs. For a ton of PET, over 50 million BTUs. For a ton of personal computers, 44 million BTUs. We even save over 5 million BTUs for every ton of fly ash we reuse instead of burying.

Energy savings measured in BTUs are not necessarily equivalent to reductions in imported oil. Recycling saves energy in all kinds of forms. But recycling does reduce some oil consumption, and that has important national security implications, as it lessens our dependency on foreign, often politically unstable, suppliers. And when recycling cuts back any kind of fossil fuel use, it

reduces a long list of pollutants – sulfur oxides, nitrogen dioxide, VOCs – and greenhouse gases as well.

Moreover, some organic wastes can be used to generate liquid fuels. Sharply higher prices for crude oil are making those kinds of fuels more and more competitive. This may not sound much like traditional recycling. But in the years ahead we're going to see a lot of time and money invested turning the waste from animal feed lots, landfills, sewage treatment facilities, and farming into alternative fuels.

In a nutshell, those are the reasons I'm here today. The efficient use of input materials, and the recycling of used materials, brings a wealth of environmental, economic, and national security benefits. So I'd like to suggest some things that we can do – many in partnership – to help strengthen the marketplace for recycling.

The federal government can play two different roles to improve market conditions for recycling. First, we can use our clout as a huge consumer of goods to expand the recycling marketplace. Second, we can assist broad market growth with information, public education, and other kinds of services. In both areas today, we have a number of activities underway.

The federal government is the largest purchaser of goods and services in the United States, buying about half a trillion dollars worth every year. The federal government buys about 60 billion dollars worth of electronic goods and services alone.

Through these purchases, we have a huge impact on the marketplace. We've known that for a long time. Several Executive Orders have required procurement practices that improve the efficiency of energy and material use, and increase the

volume and types of wastes recycled. As one result, over the past decade, federal purchases of recycled content products have steadily increased. And that's given a boost to the recycling market.

But I believe the federal government could do more than that. We could exert our efforts and influence further upstream in the production process. If we used our clout with vendors to insist on changes in material composition, product design, and packaging, we could make recycling easier and more profitable. We can change products and packaging upstream in ways that enhance their value downstream, by reducing the cost of reclaiming them.

This is not much different than the kind of thing big retailers in the private sector could do. Some of you are beginning to do this, and I encourage you to move forward.

There's a lot underway within the federal government to support broader recycling markets, too. One example is the energy bill President Bush signed a few weeks ago. It includes a number of provisions that support the growth of recycling markets in the United States.

For example, it requires that "recovered mineral components" be used in all federally-funded construction projects. "Recovered mineral components" are defined to include blast furnace slag, coal combustion fly ash, and other waste materials or byproducts recovered from solid waste.

The new law also sets renewable energy goals for the federal government. By the year 2013, for example, 7.5 percent of the electricity used by the federal government should be generated from renewable resources. Forest and agricultural biomass and solid waste materials are included in the definition of renewable resources.

Another provision requires the Secretaries of Treasury and Energy to conduct at study to quantify the energy savings achieved through the recycling of glass, paper, plastic, steel, aluminum, and electronics. Then the two Agencies have to identify tax incentives that would encourage recycling of these materials. As I noted earlier, EPA has already begun to quantify energy savings through recycling. I would hope our work provides a good starting point for this study.

Another section of the law requires the Department of Energy and EPA to identify ways of increasing the reuse of re-refined oil.

The recycling industry did not get everything it wanted in the energy bill. But by including these provisions, Congress recognized that reuse and recycling are important parts of the nation's energy mix.

At EPA we're trying to strengthen recycling markets through partnerships with the private sector. Our primary initiative in this area is the Resource Conservation Challenge. Today we have in place action plans in four specific areas – municipal solid waste, secondary materials like coal ash and construction debris, priority chemicals, and electronics.

We're aiming at some ambitious targets. Like increasing the national recycling rate for municipal solid waste to 35 percent by 2008. And recycling 45 percent of coal combustion products by 2008, reducing the release of persistent, toxic chemicals by 15 percent, compared to 2001 levels, and reducing toxic chemical releases from federal facilities by 40 percent by 2006.

The Resource Conservation Challenge is just the beginning of EPA's commitment to materials management. There's a whole lot more we could do. Here's a few of the possibilities.

One thing we could do is help remove regulatory impediments to the

efficient operation of the recycling marketplace. This will come as no surprise to you, but sometimes government agencies write regulations or practice policies that have unintentional, and adverse, implications for business. For example, last December the Food and Drug Administration promulgated a rule that imposes substantial record keeping requirements on some businesses that recycle food waste as a feed for farm animals.

FDA has a very worthy goal here. They want to be able to track the waste if it's been purposefully contaminated, thus posing a serious risk to humans or animals. But as recyclers know, these record keeping requirements pose a substantial barrier to the smooth operation of the marketplace. They raise the cost and complexity of doing business.

In this case, FDA is aware of the problem for food recyclers. They tell us that they'll be putting out clarifying guidance in the next month or so.

I mention this example to highlight a larger issue. How can your industry and EPA communicate better, and work together better, to ensure that the recycling marketplace is not entangled in regulations or policies that unintentionally strangle its growth? How do we get ahead of the game, and make sure that effects on the recycling market are considered whenever rules are written? I'm open to your suggestions.

Another example: we could provide information to the American public, and American businesses, that emphasizes the civic importance of recycling. In this case, I <u>am</u> talking about the collection of materials, not the reuse. But collection is as essential part of the process, and high collection costs may be one of the explanations for flat recycling rates.

This may sound a little corny, but 20 years ago recycling had an aura of

civic virtue that it seems to have lost today. Because millions of people voluntarily separated recyclables, the costs of collection were reduced. That helped your industry.

Should EPA try to reenergize voluntary collection efforts with a high-profile public communications effort? Would that help?

Another thing EPA could do is collect better data in a more timely way. The national recycling data I cited earlier were from the year 2003. That's the most recent data we've got. We're not planning to publish complete data from 2005 until late in 2006 at the earliest.

In a market where commodity prices are quoted hourly, I don't think two- or three-year-old data are useful to you. EPA could do better than that.

A final idea: we could provide technical assistance to state and local governments to help them with resource recovery and conservation. There's a long-overlooked section of RCRA that requires the EPA Administrator to provide teams of technical experts to help government organizations recycle. To my knowledge, it's never been implemented. We're looking at it now to see how it could be used to provide technical, financial, and marketing expertise to much-expanded recycling effort by government.

There is undoubtedly more we could do to support the recycling market. Is there something I've missed here? Do you see other ways for EPA to support your market? Let me know.

When I returned to work at EPA four years ago, I wasn't eager to work on regulatory issues. I've worked on both sides of the regulatory fence. I've seen what a hard and thankless job it is to write regulations, and how expensive and frustrating it can be to comply with them. So when my predecessor in the AA's job

announced the Resource Conservation Challenge, I signed up in a heartbeat. I leapt at the chance to work with the private sector on non-regulatory initiatives that held out the promise of real results in real time.

We're beginning to see results in the Resource Conservation Challenge. Now we need to pick up the pace. If you see an opportunity to participate in our four target areas, step in. Our success depends on your involvement.

Could work together fruitfully to support the market for other waste streams beyond those targeted in the Challenge? Most of the data and trends I've talked about today are related to municipal solid waste. Is there anything more EPA could do to support industrial waste recycling? Are current economic trends affecting recycling rates in that market?

What about aluminum? It baffles me that Americans can throw away 55 BILLION aluminum beverage cans a year at a time when energy costs, and virgin material costs, are skyrocketing. How do you explain such a stark marketplace failure?

But compared to recycling rates for aluminum in durable goods, aluminum can recycling looks like a smashing success. In 2003 we recycled almost none of the one million tons of aluminum used in durable goods that ended up in municipal landfills...as waste. Why? What can we do about it?

I'm ending these remarks the same way I started them: asking a lot of questions for which I don't have answers. Maybe recycling rates are being held down by the costs of collection, or the lack of public interest, or complex government regulations, or something else entirely. I don't know.

But I <u>do</u> know this. In light of today's commodity prices, this should be a golden age for recyclers. Opportunities abound. And we need to take maximum

advantage of them.

The American economy is the great engine of the global economy. It is also seen by other countries as a great example of how economies grow successfully. As painful as it may be, we should all take some pride in the economies of China and India. After all, both countries are adopting more and more of our free market economic principles. In a global economy where we are both engine and example, we cannot be careless and wasteful. We will never be so rich that we can afford to discard once-used wealth.

A healthy recycling market is crucially important to this country, now and in the long run. Let's work together to make that market as strong as we can.

Thank you.